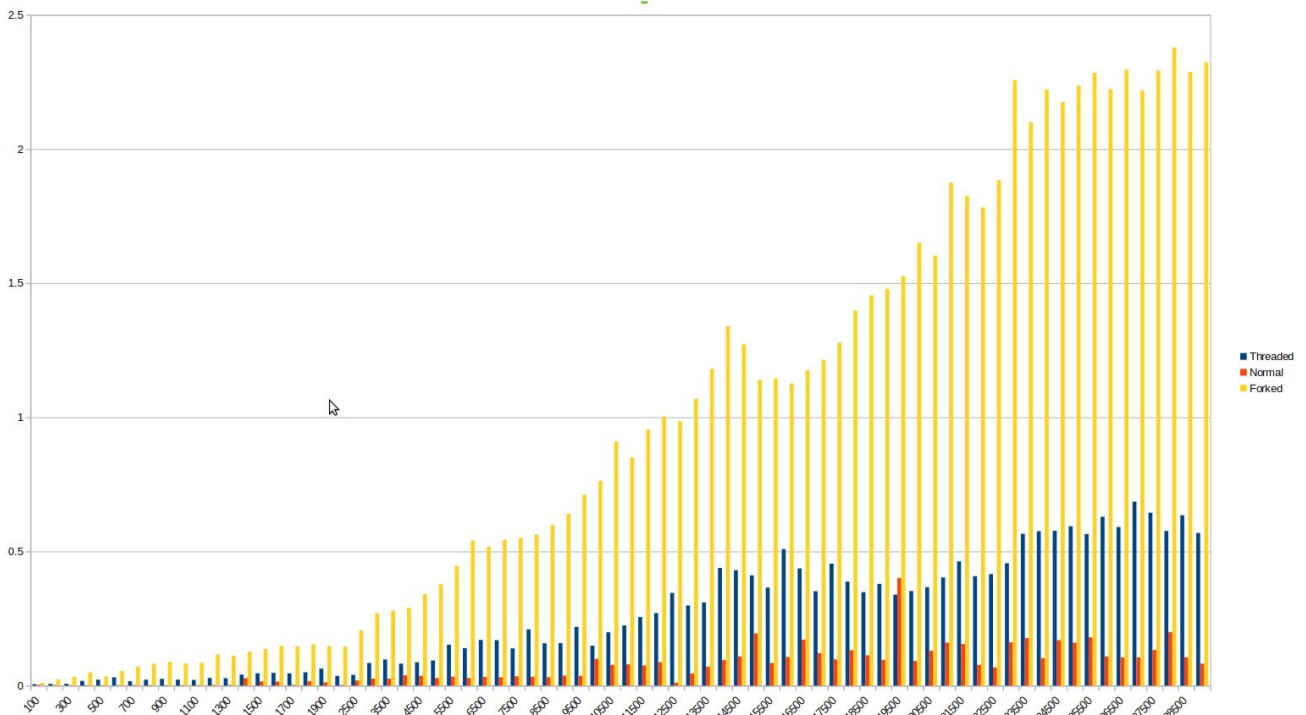# Merge-Sort Analysis

BY - Anurag Sahu
2018121004
B.Tech II year

Here is the comparison of merge sort with Threaded, normal, and Forked MergeSort.

Graph:-

Here,
X axis -> Input Length, 1 unit = 100 , 500
Y axis -> Time Taken 1 unit = 0.5 sec
From here we can see the comparison of merge sort, Following conclusions can be made by this graph:-

1. Normal Merge sort performs better that threaded and Forked merge sort.
2. This may happen because data segment is locked by mutex and It actually has no advantage of threading in the program because anyways the accessed in mutually exclusive way.
3. Moreover this also increases the overload of Handling the mutex and threads which is slowing down the program.
4. Same with The context switching in Process is slowing the Whole mergesort down.